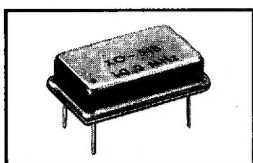


MODELS XO-54B, XO-54BD, XO-54BE Clock Oscillators

Hybrid Crystal, 240 Hz to 110 MHz (-54B)
1.0 MHz to 70 MHz (-54BD), 1.0 MHz to 110 MHz (-54BE)



FEATURES

- HCMOS, CMOS, NMOS, TTL, LS-TTL, S-TTL compatible
- Enabled output optional
- Hermetically sealed package

ELECTRICAL SPECIFICATIONS

Operating Temperature Range: 0°C to 70°C.

Frequency Stability: (Inclusive of calibration tolerance at 25°C temperature change, input voltage change, load change, aging, shock and vibration): $\pm .01\%$ (± 100 PPM).

Input Voltage (V_{dd}): + 5.0 \pm 0.5 VDC.

Input Current: 5 to 50 mA typical (see graph).

Rise Time: 4nS typical (CMOS levels), 2nS typical (TTL levels).

Fall Time: 4nS typical (CMOS levels), 2nS typical (TTL levels).

Logic '0' Level: 0.5 V maximum CMOS, 0.4 V maximum TTL (V_{dd} = 5 V).

Logic '1' Level: 4.5 V minimum CMOS, 2.4 V minimum TTL (V_{dd} = 5 V).

Logic '0' Sink Current: 16 mA minimum.

Logic '1' Source Current: 0.4 mA minimum.

Output Waveform Symmetry: 60/40 standard. 55/45 available.

Output Load: 50 pF HCMOS or 1-10 TTL loads.

Enable Input Voltage: 3.5 V minimum.

Disable Input Voltage: 0.5 V maximum.

Enable Input Current: 10 μ A maximum.

Disable Input Current: 300 μ A maximum.

MECHANICAL SPECIFICATIONS

Hermetically Sealed Package: Leak rate less than 2×10^{-8} atmosphere cc/sec. of helium.

Marking Ink: Epoxy, solvent resistant.

Solvent Resistance: Isopropyl alcohol, trichloroethane, Freon TMC.

Terminal Solderability: Per MIL-STD-202, Method 208C.

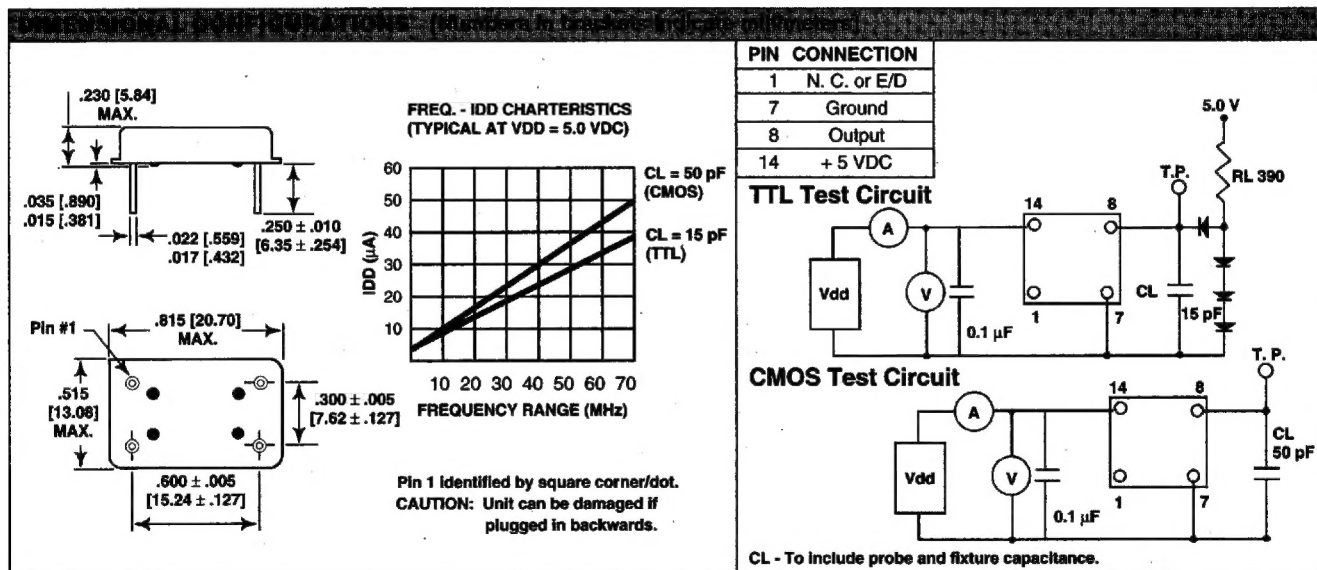
ENVIRONMENTAL SPECIFICATIONS

Temperature Cycle: - 55°C to + 85°C, 3 cycles.

Shock: 1000 G's 0.35 millisecond, 1/2 sine wave, 3 shocks each plane.

Vibration: .06 D.A., 10-55 Hz, 35 G, 55-2000 Hz.

Humidity: 85% relative humidity at 85°C, 240 hours.



— Model
— Frequency
— Pin identifier
— Date

XO-54	B	E	-59	10
MODEL	FREQ. ACCURACY	ENABLE/DISABLE	SYMMETRY	FREQ./MHZ
	AA = .0025% A = .005% B = (.01% Std. tol.)	D = Disable to Logic 1 Level E = Disable to Tri-State BLANK = #1 Pin open	Blank = Std. 60/40 -59 = 45/55 TTL Level -60 = 45/55 CMOS Level	

Contact factory for other models, logic families, stabilities and temperature ranges.